lake in Florida and in the United States, was famous for its bass and spekled perch fishing. Not only the bass and perch but other small species of fishes of considerable scientific interest have nearly vanished from Lake Trafford. A similar fate confronts other Florida lakes if something is not done now.

Obviously, fish conservation must deal not only with the present and immediate future but also with the distant future. A future project of great magnitude and concern from the point of view of fish conservation is the proposed Cross-Florida Barge Canal. No one knows if or when this will be approved, but conservational measures should be taken now.

Perhaps the most important problem confronting the conservation of fresh water fishes is the problem of water conservation. Seepage of sea water into our water table has been gradually occurring for a number of years. At present we take fresh water for granted. It is still abundant in Florida, but the alarmingly rapid growth of industry and metropolitan areas is already taking its toll. Because of climate, and paradoxically because of our aquatic resources, more and more people and more and more industry will be coming to Florida. As a result more and more fresh water will be taken, our water table will weaken, and more salt water will seep in.

And where does our fresh water come from? Mostly from rain, especially hurricane rain. As an amateur meteorologist I try to keep up with hurricane research. One of the aims of that research is the eventual control or destruction of hurricanes before they reach land. True, the destructive effects of hurricanes are well known to Floridians, but the beneficial effect of their rains is often forgotten. Or perhaps the modern methods of distillation will, sometime in the future, provide enough fresh water from the sea for human and industrial consumption after we lose our water table through the absence of hurricanes. And where will our fresh water fishes live? Perhaps we can keep our lakes filled with fresh water recovered from the sea, but let us hope that the process will be far more costly than the financial losses resulting from hurricanes.

To summarize, we are faced with the increasing spread of exotic species, sewage and chemical pollution, the silting through agriculture, the digging of canals, the weakening and salinization of our water table, and hurricane control. It is not a pretty picture but a real one. Can it be prevented? Probably not entirely. It is good to be idealists but let us be practical idealists. We cannot successfully fight so-called progress; it is a fact of life and it is here to stay. But we can and must take preventive measures through research, education, and the appeal to the esthetic sense of the outdoors which is so much a part of human nature.

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Ichthyological Laboratory and Museum, Department of Zoology, University of Miami, Coral Gables, Florida. Contribution No. 53.

A NEW SPECIES OF SEAROBIN (TRIGLIDAE)

George C. Miller

A previously unknown species of *Bellator* was recently captured in a bottom trawl by the Bureau of Commercial Fisheries exploratory fishing vessel *Oregon*. This species, a cognate of *Bellator militaris* (Goode and Bean), was taken in the Caribbean Sea and the western Atlantic Ocean off northern South America.

Measurements and counts follow Ginsburg (1950, pp. 490-494) and Miller (in press); names and locations of head spines are from Ginsburg (1953, Fig. 1). Specimens of *B. militaris* from the following stations were used for comparison with the new species: *Silver Bay* 1234, 1341, 1238, 5473, 3656, 2147, 3183, 1558, 1557, 1568, 2629, 2658, 5108, 5106, 5107, 5104, 5105, 2398, 2382; *Combat* 337, 338, 333; and *Oregon* 2838; deposited in the fish collections of the Bureau of Commercial Fisheries Tropical Atlantic Biological Laboratory, Miami, Florida (TABL). In this paper, the terms juveniles or small specimens denote those 35 mm SL and smaller, and adults or large specimens, 75 mm SL and larger.

Harvey R. Bullis, Jr., made these specimens available to me. Frederick H. Berry and Jack W. Gehringer reviewed and edited the manuscript. The illustrations were drawn by Grady W. Reinert.

Bellator ribeiroi, new species

Figs. 1A, 2A, 3A

Holotype: USNM 261273-F1, 93 mm, off São Luis, Brazil, *Oregon* sta. 4238, 2°10′S, 42°24′W, 26 fms., bottom water temp. 84°F, March 11, 1963.

Paratypes: USNM 261273-F3, 3(76-85 mm), *Oregon* sta. 4238, same data as holotype.—USNM 261273-F4, 3(53-58 mm), *Oregon* sta. 4895, 9°35′N, 76°04.5′W, 22-30 fms., May 26, 1964.—USNM 261273-F5, 1(59 mm), *Oregon* sta. 4908, 11°23′N, 73°33.5′W, 25-28 fms., May 31, 1964.—USNM 261273-F6, 1(37 mm), *Oregon* sta. 4875, 10°53′N, 75°22′W, 22-24 fms., May 23, 1964.—USNM 261273-F2, 10(22-50 mm); UMMZ, 3(36-55 mm); TABL, 4(30-51 mm); *Oregon* sta. 4894, 9°32.8′N, 76°09.3′W, 33 fms., May 26, 1964.—BMNH, 3(43-63 mm), *Oregon* sta. 4900, 8°53′N, 76°40′W, 34 fms., May 27, 1964.—MNHN, 2(55, 66 mm), *Oregon* sta. 5031, 11°12′N, 60°35.5′W, 40-42 fms., Sept. 22, 1964.—MN (Brazil), 3(36-42 mm), *Oregon* sta. 4893, 9°33.7′N, 76°05.4′W, 23 fms., May 26, 1964.—MN (Brazil), 1 (69 mm), *Oregon* sta. 4164, 8°00′N, 58°05′W, 30 fms., Feb. 18, 1963. —MCZ, 2(41, 59 mm); ANSP, 2(41, 61 mm); CNHM, 2(46, 62 mm); SU, 2(40, 61 mm); UMML, 2(45, 61 mm); CU, 2(47, 55 mm); TU, 2(53, 59 mm); UW, 3(44-56 mm); *Oregon* sta. 4899, 8°50.5′N, 76° 53.5′W, 37-40 fms., May 27, 1964.—TABL, 4(32-45 mm), *Oregon* sta. 4886, 9°38′N, 75°54.5′W, 23 fms., May 25, 1964.—BLBG, 1(60 mm), Commercial Shrimp Trawler off Surinam, May-Aug., 1962.

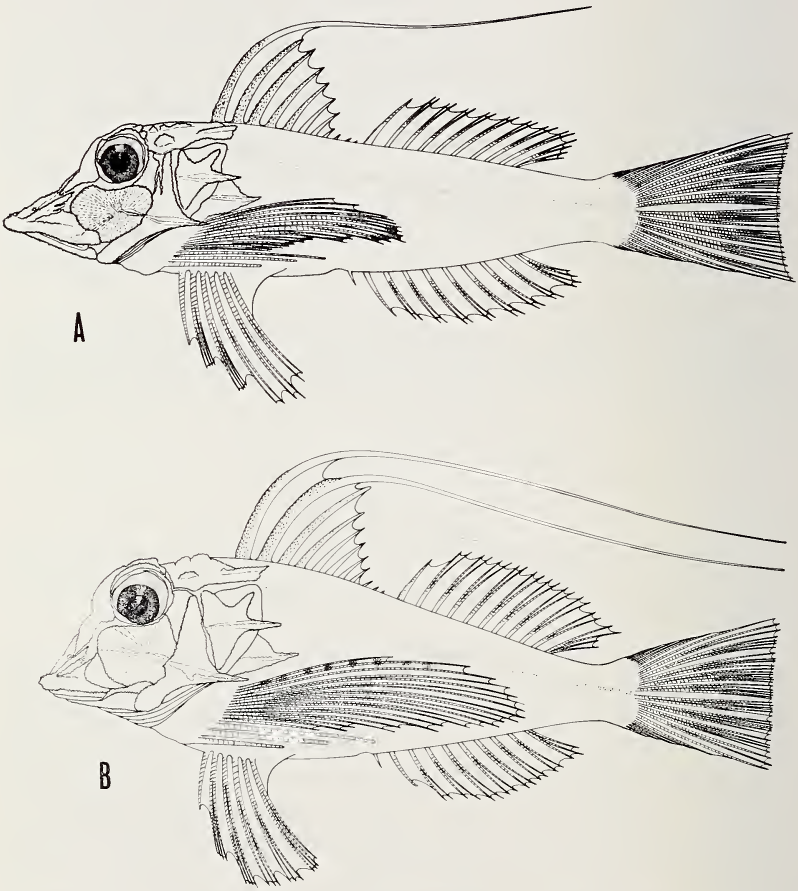

Fig. 1. (A) *Bellator ribeiroi*, holotype, 93 mm SL; (B) *Bellator militaris*, 86 mm SL, *Combat* sta. 337. Lateral view of adults.

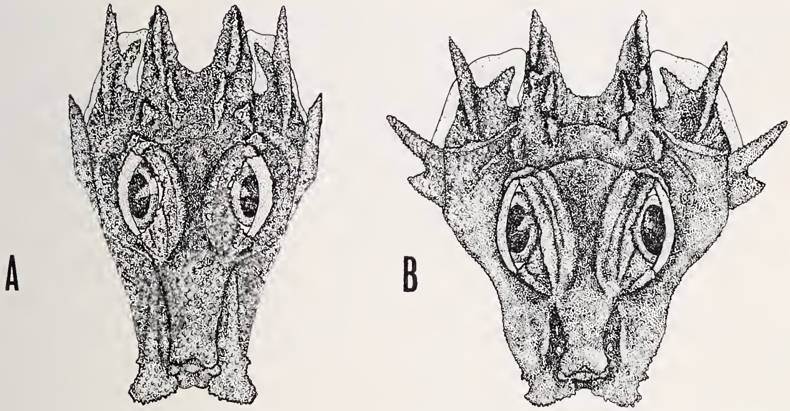

Fig. 2. (A) *Bellator ribeiroi,* holotype, 93 mm SL; (B) *Bellator militaris,* 86 mm SL. Dorsal view of head of adults.

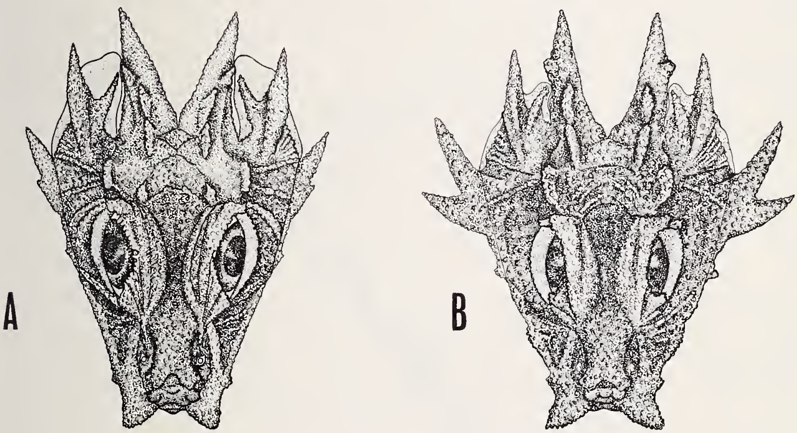

Fig. 3. (A) *Bellator ribeiroi,* paratype, 31.6 mm SL, *Oregon* sta. 4886; (B) *Bellator militaris,* 31 mm SL, *Oregon* sta. 2838. Dorsal view of head of juveniles.

Abbreviations. USNM, United States National Museum. UMMZ, University of Michigan Museum of Zoology. BMNH, British Museum of Natural History. MNHN, Museum National d'Histoire Naturelle. MN(Brazil), Museu Nacional, Rio de Janeiro. MCZ, Museum of Comparative Zoology. ANSP, Academy of Natural Sciences of Philadelphia. CNHM, Chicago Natural History Museum. SU, Stanford University. UMML, University of Miami

Marine Laboratory. TU, Tulane University. UW, University of Washington. BLBG, U. S. Bureau of Commercial Fisheries Biological Laboratory, Brunswick, Ga.

Diagnosis. A *Bellator* with large cleithral spines. Scales present on chest anterior to a line between the median rays of the pelvic fins. Body depth at first dorsal spine slender (Fig. 4), average

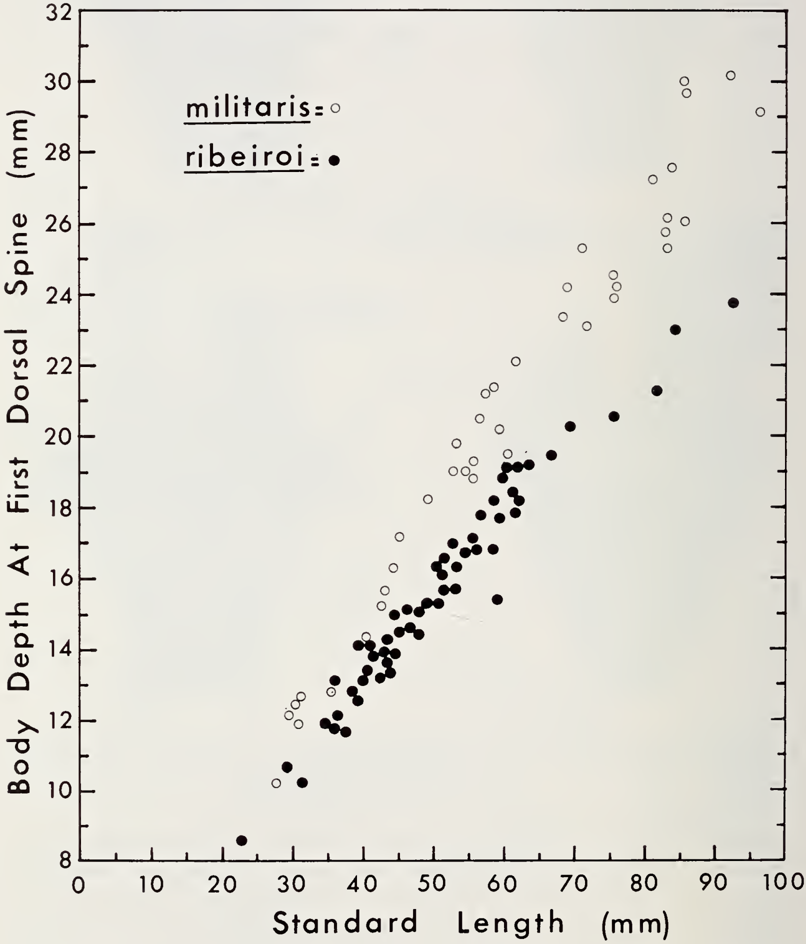

Fig. 4. Comparison of the body depth at the first dorsal spine of 56 type specimens of *Bellator ribeiroi* with 40 specimens of *B. militaris*.

31.6% SL. Interorbital width narrow, average 7.1% SL (Fig. 5). First dorsal spine elongated on many specimens; other dorsal spines never elongated. First (dorsalmost) pectoral ray orange, lacking alternating black and white bands; pectoral fins dusky orange with distal ends of ventralmost branched rays black.

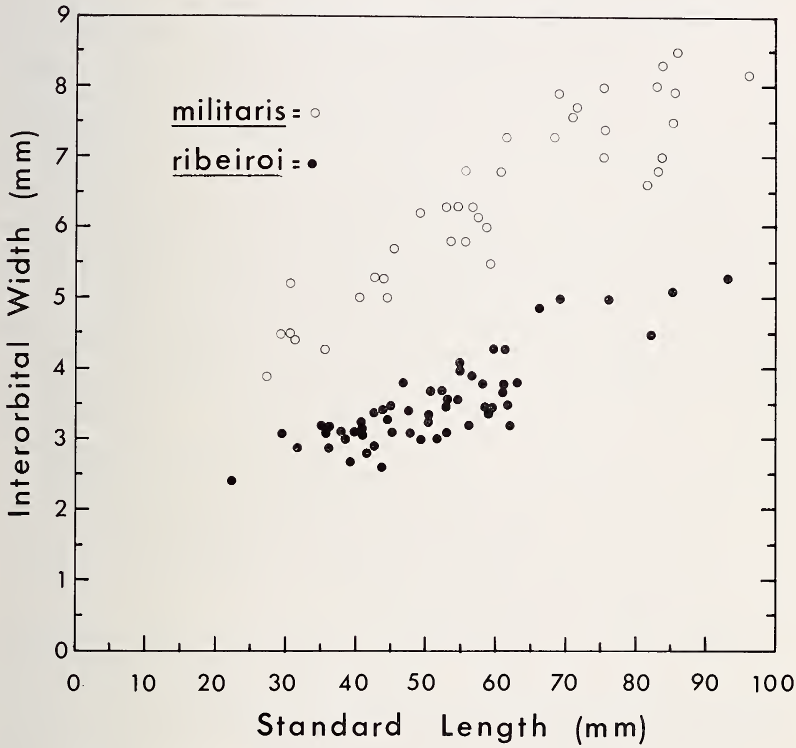

Fig. 5. Comparison of the interorbital widths of 57 type specimens of *Bellator ribeiroi* with 40 specimens of *B. militaris.*

Measurements and Counts. Measurements taken from the 57 type specimens, 22-93 mm SL (average 51 mm SL), were recorded as percentages of standard length (the average followed by the range in parentheses): Head length 43.0 (37.1-51.3); body depth at first dorsal spine 31.6 (26.0-38.4); interorbital width 7.1 (5.2-10.7); least width of rostrum 11.0 (9.1-14.3); pectoral length 45.1 (36.7-55.3); first free pectoral ray length 32.4 (24.2-39.0).

Dorsal spines X-XI, predominately XI. Dorsal softrays 10-11, usually 11. Anal softrays 9-11, usually 10. Pectoral joined rays 11-12, usually 12, plus 3 free rays. Pelvic spine I. Pelvic softrays 5. Gillrakers and tubercles on first arch usually 17-18; epibranchial, 1 or 2 rakers or tubercles; ceratobranchial, 8 rakers plus 2 tubercles; and hypobranchial, 6 tubercles.

Description. Dorsal spines decreasing in size posteriorly to eighth or ninth spine; posterior two or three spines subequal, small, separate, sometimes scarcely discernible; anterior three spines strongly serrated on anterior edge, fourth and fifth spines bearing some serrations; first dorsal spine elongated on 24 type specimens; short, developing filamentous spine present on specimen 36 mm SL, filamentous spine extending past caudal in a specimen 52 mm SL; second dorsal spine not elongated. First dorsal softray not branched, its anterior edge partially serrated; remaining dorsal softrays branched, last softray divided to its base. Pectoral fin wedge-shaped; middle rays longest, ventral rays decreasing more rapidly in length than dorsal rays; first free ray shorter than longest joined ray; first free ray longer in juveniles (ca. 87% of pectoral length) than in adults (60-80% of pectoral length). Membrane connecting median pelvic ray to side of body. Caudal fin emarginate. Membrane of mouth attached to epibranchial bone of first gill arch, extending nearly to articulation of epibranchial with ceratobranchial; tubercles on hypobranchial bone not fused. Scales absent on abdomen from line between median rays of pelvics posteriorly for one-half the distance to the anus.

Supraocular and postocular spines large in juveniles, becoming small to obsolete in adults. Frontal spine small, located in occipital groove, decreasing in relative size with growth of fish. Anterior parietal spine smaller than prominent posterior parietal spine in small specimens, the spines reduced to rounded ridges in large specimens. Upper posttemporal spine large, a smaller lower posttemporal spine in small specimens decreasing to a low flat ridge in large specimens. Pterotic ridge elevated, with blunt edge. Opercular spine long. Preopercular spine not extending to tip of opercular spine; supplemental preopercular spine small in small specimens, becoming obsolete in large specimens. Rostral exsertions short, either rounded or triangular, usually terminating anteriorly as one or more small spines. Single, small preorbital (lachrymal) spine on edge of rostrum near base of exsertion. Low ridge extending an-